

from processor section 22. Because the display 32 is typically a liquid crystal display (LCD), backlighting is generally required for the purposes of providing a contrasting background for the darker images.

The housings 10 and 12 of the computer system C are typically formed from a suitable strength rigid synthetic resin material to protect the electronic components contained therein. The housings 10 and 12 may be folded together about their hinged connections 14 and 16 and locked or latched to each other when the computer system C is not in use. The computer system C is opened by folding housing sections 10 and 12 apart so that the display 32 stands generally upright, while the housing 10 rests on a suitable support or surface. In this position, a frontal or data entry surface 34 of the housing 10 is accessible to the computer user face-on or in a frontal viewing position. The data entry surface 34 of the housing 10 has the data entry mechanism or keyboard 18 mounted on it.

In the computer system C, an infrared (IR) sensor 36 mounted with other infrared electronics 38 (FIGS. 2 and 4) is suitably located such as on a circuit board B within the housing 10. According to the present invention, an infrared port 40 (FIGS. 3 and 4) is formed on the data entry or frontal surface 34 of the housing 10. In this manner, communications from a hand-held or portable infrared control transmitter is made possible from the same aspect or side of the computer system C on which is located the data entry mechanism 18.

The infrared port 40 may be made of any suitable material which is transparent or translucent to infrared energy. Examples include suitable types of synthetic resin or glass which are transparent or translucent to infrared light. In this manner, infrared signals providing infrared communication capability with remaining portions of the computer system C are possible through the infrared port 40. If desired, a mirror 42 or other surface reflective of infrared light may be mounted or otherwise formed along an inner surface 44 of a rear wall 46 of the housing 10. This permits infrared light as indicated by a line designated with reference numeral L to enter the infrared port 40 in the data entry or frontal surface 34. The incoming infrared light L is directed by the reflective surface 42 onto the infrared sensor 36, when sensor 36 is not located at a position directly facing the infrared port 40.

The housing 10 may also be provided with a conventional, rear mounted infrared port 50 (FIG. 5) in the rear wall 46 of the housing 10. This permits infrared communication to be made to the computer system C through either the frontal surface 34 of the housing 10 through the port 40 or through the rear wall 46 through the rear mounted infrared port 50.

A movable sliding wall or door member 52 may be mounted in the rear wall 46 of the housing 10 to selectively open and close the port 50 to passage of infrared light. The movable wall 52 is movable laterally along the lateral extent of the rear wall 46 to allow selective closure or opening of the rear mounted infrared port 50.

The movable wall 52 is provided with an infrared light reflective surface or mirror on its inner surface in a like manner to mirror 41 on rear wall 46 shown in FIG. 3. The reflective surface on the movable wall 52 functions when the wall 52 is blocking passage of infrared light through the port 50 to reflect infrared light entering through the frontal port 40 and direct such reflected light onto the infrared sensor 36.

Accordingly, it can be seen that the present invention provides a new and improved personal computer system with infrared communication capability. The housing 10

which contains the processor 22, also has both the data input mechanism 18 and the infrared port 40 mounted on the data entry surface 34.

The infrared port 40 is thus located on the same surface 34 of the housing 10 as the data entry mechanism 18. The infrared sensor 36 is thus accessible to infrared light from the same frontal direction as data is entered into the computer system C. The frontal infrared port 40 may be the sole inlet for infrared light to the infrared sensor 36, or the computer system housing may have both a frontal infrared port 40 according to the present invention and the conventional, rear-mounted infrared light port 50 as well, if desired.

When the computer system housing 10 is provided with both the frontal port 40 and the rear-mounted infrared port 50, a light reflective mechanism, such as a mirror, can be provided. Such a light reflective mechanism is movable on the movable wall 52 to selectively direct incoming infrared light from either one of the infrared ports 40 and 50 onto the infrared sensor 36. In this way, only one infrared sensor 36 and associated infrared electronics 38 are required for the computer system C.

Having described the invention above, various modifications of the techniques, procedures, material and equipment will be apparent to those in the art. It is intended that all such variations within the scope and spirit of the appended claims be embraced thereby.

I claim:

1. A personal computer system with infrared light communication capability, comprising:
 - a processor;
 - a data entry input mechanism for entry of data into said processor;
 - a housing containing said processor and having said data entry input mechanism mounted on a data entry surface thereof;
 - an infrared light sensor for receiving infrared communications for said processor;
 - an infrared receiving port coupled to said infrared light sensor and formed in said data entry surface of said housing for passage of infrared light to said infrared sensor; and
 - a light reflective mechanism moveable to selectively block and pass light between said infrared port and said infrared sensor.
2. The personal computer system of claim 1 wherein said light reflective mechanism comprises a light reflective surface which is reflective of infrared light.
3. The personal computer system of claim 2, wherein said light reflective surface comprises a mirror.
4. The personal computer system of claim 1, further including
 - said housing having a side wall; and
 - an infrared port in said housing side wall for passage of infrared light to said infrared sensor.
5. The personal computer system of claim 4, wherein said light reflective mechanism selectively directs light entering said infrared port in said data entry surface and light entering said infrared port in said side wall onto said infrared sensor.
6. A personal computer system with infrared light communication capability, comprising:
 - a processor;
 - a data entry input mechanism for entry of data into said processor;
 - a housing containing said processor and having said data entry input mechanism mounted on a data entry surface thereof;